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PRELIMINARY REPORT
INDUSTRY SERIES

1987

Census of Manufactures

MC87-I-36B(P)
Issued July 1989

HOUSEHOLD APPLIANCES

Industries 3631, 3632, 3633, 3634, 3635, and 3639

INTRODUCTION

This report presents preliminary statistics from the 1987 Census of Manufactures for those establishments classified in the industries listed above. These data will be superseded by a more comprehensive final paperbound report. The method of data collection and use of administrative data are discussed in detail in the appendix.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The definitions of these industries are the same as those used in the 1987 Standard Industrial Classification (SIC) Manual.¹

INDUSTRY 3631, HOUSEHOLD COOKING EQUIPMENT

In the 1987 Census of Manufactures, Industry 3631, Household Cooking Equipment, had employment of 21.7 thousand. The employment figure was 8 percent below the 23.7 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 2 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$3.4 billion. The products primary to this industry appear in table 2 and aggregated to \$3.2 billion in 1987.

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Address inquiries to Bureau of the Census, Industry Division, Washington, DC 20233, or call **Raphael S. Corrado** (301) 763-7304.

The cost of materials and services used by establishments in this industry amounted to \$2.1 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3632, HOUSEHOLD REFRIGERATORS AND FREEZERS

In the 1987 Census of Manufactures, Industry 3632, Household Refrigerators and Freezers, had employment of 25.7 thousand. The employment figure was 15 percent above the 22.4 thousand reported in 1982. Compared with 1986, employment in 1987 increased 8 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$3.5 billion. The products primary to this industry appear in table 2 and aggregated to \$3.3 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$2.2 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3633, HOUSEHOLD LAUNDRY EQUIPMENT

In the 1987 Census of Manufactures, Industry 3633, Household Laundry Equipment, had employment of 16.7 thousand. The employment figure was 1 percent above the 16.5 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 4 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.



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The total value of shipments for establishments classified in this industry was \$3.0 billion. The products primary to this industry appear in table 2 and aggregated to \$2.8 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$1.6 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3634, ELECTRIC HOUSEWARES AND FANS

In the 1987 Census of Manufactures, Industry 3634, Electric Housewares and Fans, had employment of 25.3 thousand. The employment figure was 35 percent below the 38.7 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 12 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$2.8 billion. The products primary to this industry appear in table 2 and aggregated to \$2.6 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$1.4 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3635, HOUSEHOLD VACUUM CLEANERS

In the 1987 Census of Manufactures, Industry 3635, Household Vacuum Cleaners, had employment of 12.3 thousand. The employment figure was 46 percent above the 8.4 thousand reported in 1982. Compared with 1986, employment in 1987 increased 7 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$1.6 billion. The products primary to this industry appear in table 2 and aggregated to \$1.3 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$722.0 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3639, HOUSEHOLD APPLIANCES, N.E.C.

In the 1987 Census of Manufactures, Industry 3639, Household Appliances, N.E.C., had employment of 16.0 thousand. The employment figure was 13 percent above the 14.2 thousand reported in 1982. Compared with 1986,

employment in 1987 decreased 4 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$2.4 billion. The products primary to this industry appear in table 2 and aggregated to \$2.3 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$1.2 billion in 1987. Data on specific materials consumed appear in table 3.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

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Census/ASM		
Durables	Kenneth Hansen	(301) 763-7304
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Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix.]

Year ¹	All establishments ³			All employees		Production workers			Valua added by manufac-ture ⁴ (million dollars)	Cost of materials (million dollars)	Valua of shipments (million dollars)	Naw capital expend-itures (million dollars)	End-of-year inven-tories ⁴ (million dollars)	Ratios	
	Com-pa-nies ² (no.)	Total (no.)	With 20 employ-eas or mora (no.)	Numbar (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wagas (million dollars)						Special-ization (par-cent)	Cover-aga (par-cent)
INDUSTRY 3631, HOUSEHOLD COOKING EQUIPMENT															
1987 Census ----	(NA)	79	47	21.7	461.7	16.7	32.9	311.1	1 295.4	2 094.5	3 397.5	77.6	647.7	(NA)	(NA)
1986 ASM -----	(NA)	(NA)	(NA)	22.2	461.9	16.9	32.6	310.1	1 305.3	2 089.8	3 328.7	88.6	663.0	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	24.2	492.4	18.5	35.9	323.7	1 236.5	2 006.7	3 297.3	76.6	621.5	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	27.7	544.8	21.5	42.9	370.8	1 528.8	2 161.4	3 578.5	86.3	756.4	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	26.5	488.7	19.7	39.4	323.7	1 276.9	1 862.0	3 075.8	69.4	590.8	(NA)	(NA)
1982 Census ----	71	88	59	23.7	402.1	17.0	31.4	254.8	941.4	1 408.3	2 414.9	51.5	497.1	88	84
1981 ASM -----	(NA)	(NA)	(NA)	27.3	417.3	20.9	42.1	288.9	1 041.8	1 552.4	2 525.9	57.7	499.2	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	28.1	398.9	21.1	42.3	272.8	968.0	1 507.5	2 465.5	49.8	440.2	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	29.1	384.1	21.6	42.1	255.2	991.1	1 369.8	2 353.4	41.5	432.2	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	28.0	339.8	21.6	40.5	235.0	841.3	1 110.7	1 912.4	35.8	365.6	(NA)	(NA)
1977 Census ----	84	96	58	25.4	289.1	19.1	36.8	197.9	784.1	943.9	1 707.2	36.1	303.8	92	80
1976 ASM -----	(NA)	(NA)	(NA)	23.1	259.3	17.3	33.3	166.9	693.8	815.4	1 457.3	35.6	279.4	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	18.6	196.3	14.0	26.1	127.1	474.7	590.9	1 087.9	20.4	201.2	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	22.2	210.2	16.9	31.8	138.9	462.9	577.5	1 045.7	18.2	209.0	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	25.2	228.5	19.9	40.0	158.7	484.7	608.3	1 073.8	32.4	214.1	(NA)	(NA)
1972 Census ----	72	82	49	23.3	205.7	18.4	36.8	141.5	412.0	532.1	939.8	25.5	168.0	91	74
INDUSTRY 3632, HOUSEHOLD REFRIGERATORS AND FREEZERS															
1987 Census ----	(NA)	49	26	25.7	650.7	21.6	41.5	518.2	1 450.4	2 161.6	3 518.9	100.3	621.0	(NA)	(NA)
1986 ASM -----	(NA)	(NA)	(NA)	23.9	594.7	20.1	38.4	466.2	1 427.2	1 977.8	3 352.8	84.9	502.4	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	22.3	514.5	18.4	34.1	393.1	1 352.2	1 889.5	3 340.5	64.3	452.7	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	24.0	526.5	20.4	37.9	415.5	1 152.5	2 052.6	3 088.0	56.3	523.8	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	21.0	460.2	17.5	33.4	359.1	1 146.2	1 653.7	2 821.2	53.7	429.8	(NA)	(NA)
1982 Census ----	39	50	30	22.4	441.2	18.4	33.1	340.4	1 032.3	1 460.5	2 470.7	79.1	432.4	85	94
1981 ASM -----	(NA)	(NA)	(NA)	27.1	469.7	22.9	39.6	364.6	1 059.9	1 658.4	2 702.9	55.8	273.2	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	27.2	422.1	23.0	40.2	327.3	1 034.4	1 380.6	2 460.2	55.4	257.4	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	28.9	424.6	24.6	45.7	336.2	1 130.6	1 402.2	2 683.8	38.6	265.0	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	38.2	540.4	32.1	59.7	405.6	1 204.3	1 606.9	2 773.0	73.3	439.0	(NA)	(NA)
1977 Census ----	33	42	25	35.8	468.6	29.8	56.9	358.0	1 166.1	1 447.6	2 576.6	46.9	399.1	77	98
1976 ASM -----	(NA)	(NA)	(NA)	33.5	393.7	27.0	50.4	285.6	983.1	1 178.6	2 106.5	47.4	353.1	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	34.3	379.7	27.6	51.8	279.8	831.1	1 185.2	2 042.5	33.8	292.9	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	32.7	333.7	26.7	52.2	252.3	720.3	1 084.0	1 817.9	43.3	268.9	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	35.0	326.0	29.0	56.3	251.0	792.0	997.1	1 784.8	23.6	277.7	(NA)	(NA)
1972 Census ----	30	36	25	34.1	305.3	28.6	55.6	233.0	790.8	944.8	1 719.7	25.5	280.0	(D)	(NA)
INDUSTRY 3633, HOUSEHOLD LAUNDRY EQUIPMENT															
1987 Census ----	(NA)	17	16	16.7	465.3	14.1	27.7	373.2	1 405.6	1 648.4	3 033.7	73.4	342.9	(NA)	(NA)
1986 ASM -----	(NA)	(NA)	(NA)	17.4	452.3	14.7	28.7	358.9	1 520.4	1 558.4	3 062.9	69.3	325.5	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	17.2	415.5	14.4	27.1	330.3	1 375.5	1 450.9	2 838.4	81.4	306.6	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	16.7	401.2	14.1	27.0	319.3	1 292.5	1 435.1	2 715.6	69.9	323.2	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	16.1	361.9	13.6	25.4	288.2	1 114.8	1 290.5	2 369.4	36.9	313.9	(NA)	(NA)
1982 Census ----	15	25	20	16.5	335.4	13.4	23.4	261.1	984.1	1 116.2	2 122.2	35.1	286.4	85	99
1981 ASM -----	(NA)	(NA)	(NA)	18.9	360.2	15.6	28.1	280.1	1 021.3	1 240.7	2 259.0	43.5	173.4	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	19.2	331.6	15.7	28.4	256.7	989.5	1 148.8	2 142.2	45.6	170.1	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	20.1	323.0	16.7	30.9	251.5	1 066.5	1 152.3	2 214.7	32.0	185.7	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	19.6	288.4	16.1	29.5	221.8	918.5	1 017.6	1 946.1	33.4	157.7	(NA)	(NA)
1977 Census ----	21	31	24	19.4	262.4	15.9	29.4	202.4	844.7	953.1	1 792.8	27.3	170.6	87	90
1976 ASM -----	(NA)	(NA)	(NA)	17.7	220.8	14.3	26.3	165.5	711.0	850.3	1 559.4	45.0	166.4	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	17.3	196.4	14.0	25.0	145.7	552.1	756.6	1 340.0	43.0	160.2	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	22.6	231.2	18.4	32.6	174.5	642.8	772.2	1 428.1	48.4	199.0	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	23.9	242.0	19.7	37.4	186.7	750.7	756.3	1 480.6	32.9	208.4	(NA)	(NA)
1972 Census ----	20	29	24	23.6	223.1	19.4	36.9	171.2	684.7	691.2	1 356.5	31.0	169.3	88	91
INDUSTRY 3634, ELECTRIC HOUSEWARES AND FANS															
1987 Census ----	(NA)	223	99	25.3	440.6	19.2	36.8	280.3	1 364.2	1 427.0	2 808.8	56.7	476.1	(NA)	(NA)
1986 ASM -----	(NA)	(NA)	(NA)	28.6	502.2	21.3	40.5	306.5	1 436.4	1 644.3	3 116.1	65.7	531.8	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	30.7	524.3	23.4	43.8	333.4	1 546.6	1 559.2	3 099.6	68.5	557.6	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	33.1	522.6	25.7	47.1	338.4	1 669.7	1 607.9	3 238.6	64.9	541.5	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	36.0	543.3	28.1	51.0	348.6	1 639.6	1 548.7	3 186.2	66.1	588.9	(NA)	(NA)
1982 Census ----	217	262	134	38.7	539.1	29.3	54.4	341.3	1 511.9	1 556.2	3 128.4	73.0	605.8	89	94
1981 ASM -----	(NA)	(NA)	(NA)	44.0	568.3	34.2	64.1	387.3	1 515.5	1 621.6	3 078.4	74.4	601.2	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	47.1	574.4	36.8	70.2	399.5	1 690.0	1 654.9	3 299.8	70.1	539.9	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	46.8	531.2	36.7	68.8	365.1	1 417.4	1 466.9	2 868.9	62.1	479.7	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	46.9	491.7	36.8	68.2	331.1	1 344.5	1 244.9	2 581.1	62.9	463.1	(NA)	(NA)
1977 Census ----	239	291	148	47.3	458.7	37.6	71.4	305.0	1 365.7	1 169.8	2 531.2	47.8	429.5	87	90
1976 ASM -----	(NA)	(NA)	(NA)	49.5	438.4	38.5	71.8	291.9	1 088.8	1 088.6	2 151.5	44.4	433.2	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	44.8	384.4	33.8	64.7	240.4	964.4	918.9	1 904.3	47.5	386.1	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	53.6	423.8	42.1	80.8	284.3	1 021.4	968.1	1 944.6	54.1	443.1	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	51.0	381.4	40.5	78.9	254.7	970.4	835.5	1 769.8	32.5	368.5	(NA)	(NA)
1972 Census ----	247	299	167	51.3	357.5	41.0	79.4	240.9	919.2	735.6	1 613.3	32.6	314.1	88	91
INDUSTRY 3635, HOUSEHOLD VACUUM CLEANERS															
1987 Census ----	(NA)	32	22	12.3	260.4	8.3	15.9	173.5	851.5	722.0	1 555.0	69.1	207.1	(NA)	(NA)
1986 ASM -----	(NA)	(NA)	(NA)	11.5	242.4	7.5	14.9	152.3	702.8	626.6	1 337.3	46.7	191.3	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	11.2	236.4	7.5	14.3	149.8	691.9	592.9	1 301.9	35.3	210.4	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	11.9	237.5	8.2	15.5	156.9	746.5	610.9	1 307.3	43.4	231.1	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	10.1	189.4	6.7	12.4	122.0	556.7	423.6	970.6	23.4	149.		

See footnotes at end of table.

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years—Con.

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix.]

Year ¹	Companies ² (no.)	All establishments ³		All employees		Production workers			Value added by manufact- ure ⁴ (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expend- itures (million dollars)	End-of- year inventor- ies ⁴ (million dollars)	Ratios	
		Total (no.)	With 20 employ- ees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Spec- ial- ization (per- cent)	Cover- age (per- cent)
INDUSTRY 3635, HOUSEHOLD VACUUM CLEANERS—Con.															
1977 Census ----	33	36	23	10.4	117.1	7.4	13.0	79.2	380.4	267.5	644.3	16.4	85.3	(D)	81
1976 ASM -----	(NA)	(NA)	(NA)	10.7	115.0	7.6	14.3	78.7	361.0	257.2	618.1	17.3	85.5	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	9.3	98.0	6.4	12.4	64.8	273.3	213.4	509.1	10.5	78.2	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	13.4	132.0	9.9	18.4	91.3	354.6	299.0	638.5	19.6	121.1	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	13.1	119.5	10.0	18.0	81.6	346.4	240.0	578.9	22.2	101.9	(NA)	(NA)
1972 Census ----	34	36	24	11.2	98.7	8.4	16.3	68.0	299.5	176.2	467.7	9.7	74.3	80	85
INDUSTRY 3639, HOUSEHOLD APPLIANCES, N.E.C.															
1987 Census ----	(NA)	75	38	16.0	369.6	13.1	26.1	276.4	1 218.8	1 206.9	2 400.5	60.2	279.0	(NA)	(NA)
1986 ASM -----	(NA)	(NA)	(NA)	16.7	373.5	13.9	27.1	285.5	1 053.8	1 247.1	2 280.1	44.9	284.6	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	16.0	337.1	13.2	26.7	259.3	1 018.9	1 147.7	2 175.3	71.9	260.4	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	16.2	338.3	13.6	27.8	262.2	1 025.5	1 157.6	2 150.7	48.5	274.9	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	15.7	313.9	13.0	25.9	238.9	869.7	1 026.0	1 879.0	36.6	239.5	(NA)	(NA)
1982 Census ----	70	83	49	14.2	252.4	11.4	21.7	180.2	673.8	754.9	1 432.0	40.6	217.9	90	82
1981 ASM -----	(NA)	(NA)	(NA)	15.4	265.8	12.4	23.7	193.7	692.8	789.4	1 462.4	33.7	197.3	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	15.7	243.2	12.6	23.7	177.2	622.9	768.4	1 411.1	23.6	182.8	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	17.3	249.9	14.0	26.5	182.2	644.9	809.4	1 424.9	28.2	209.1	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	16.4	215.3	13.1	24.2	154.9	546.4	721.1	1 267.7	29.9	167.5	(NA)	(NA)
1977 Census ----	65	80	40	15.7	195.6	12.8	25.1	143.2	527.9	667.5	1 184.0	24.6	164.2	93	79
1976 ASM -----	(NA)	(NA)	(NA)	14.5	175.6	11.5	22.4	120.3	435.2	570.8	999.2	13.0	132.2	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	13.3	148.6	10.3	19.8	102.4	358.7	475.5	845.1	15.2	118.5	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	16.3	161.6	13.2	25.0	116.5	380.4	489.8	863.9	16.5	145.7	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	18.0	168.6	14.5	27.4	121.3	386.0	474.2	851.9	27.2	130.1	(NA)	(NA)
1972 Census ----	70	85	48	14.0	123.5	10.7	20.9	83.4	341.4	363.1	681.9	18.3	103.6	93	76

Note: Establishments of single unit companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. Data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were estimated based on administrative-record information from other agencies in conjunction with industry averages. These establishments accounted for the following percent of total value of shipments: SIC 3631, 1%; SIC 3632, less than 1%, SIC 3633, less than 1%; SIC 3634, 3%; SIC 3635, 2%; SIC 3639, 2%.

¹In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1972, see 1972 Census of Manufactures, vol. II, table 1a of the Industry chapter.

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during year.

⁴Beginning with the 1982 Census of Manufactures, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior Censuses and annual surveys of manufactures in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, inventories and value added by manufacture are not comparable to prior-year data.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text.]

1987 product code	Product	1987		1982	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
3631--	HOUSEHOLD COOKING EQUIPMENT				
	Total -----	(NA)	3 232.5	(NA)	2 346.3
36311 --	Electric (including microwave) household ranges, ovens, surface cooking units, equipment, and parts (except small appliances) -----	(NA)	1 999.1	30	1 543.2
36311 10	Electric household ranges, ovens, surface cooking units, and equipment (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	21	1 823.4	30	31 543.2
36311 20	Parts and accessories for household electric ranges and ovens, such as burners, rotisseries, oven racks, broiler pans, etc. (sold separately) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	18	175.7		
36311 00	Electric household ranges, ovens, and surface cooking units, equipment and parts, n.s.k. -----	-	-		
36313 --	Gas household ranges, ovens, surface cooking units, equipment, and parts -----	(NA)	678.2	22	418.8
36313 10	Gas household ranges, ovens, surface cooking units, and equipment (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	12	637.5	22	3418.8
36313 20	Parts and accessories for gas household ranges and ovens, such as burners, rotisseries, oven racks, broiler pans, etc. (sold separately) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	10	40.7		
36313 00	Gas household ranges, ovens, and surface cooking units, equipment, and parts, n.s.k. -----	-	-		

See footnotes at end of table.

Table 2. **Product and Product Classes—Quantity and Value of Shipments by All Producers:**
1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987		1982	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
3631- --	HOUSEHOLD COOKING EQUIPMENT—Con.				
36314 --	Other household ranges and cooking equipment -----	(NA)	538.2	34	370.6
36314 10	Other household ranges and cooking equipment (except gas and electric) and outdoor cooking equipment (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	26	486.5	34	370.6
36314 20	Parts and accessories for outdoor and other cooking equipment (sold separately) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	16	48.6		
36314 00	Other household ranges and cooking equipment (except gas and electric) and outdoor cooking equipment, including parts and accessories, n.s.k. -	(NA)	3.1		
36310 --	Household cooking equipment, n.s.k. -----	(NA)	17.1	(NA)	13.7
36310 00	Household cooking equipment, n.s.k., typically for establishments with 20 employees or more (see note) -----	-	-	(NA)	6.6
36310 02	Household cooking equipment, n.s.k., typically for establishments with less than 20 employees (see note) -----	(NA)	17.1	(NA)	7.1
3632- --	HOUSEHOLD REFRIGERATORS AND FREEZERS				
	Total -----	(NA)	3 322.1	(NA)	2 201.7
36321 --	Household mechanical refrigerators, including combination refrigerator- freezers: -----				
36321 00	Household mechanical refrigerators, including combination refrigerator- freezers (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	18	3 004.5	14	1 786.9
36322 --	Food freezers, household: -----				
36322 00	Food freezers, complete units, household type (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	9	230.1	10	311.2
36323 --	Parts and attachments for household refrigerators and freezers: -----				
36323 00	Parts and attachments for household refrigerators and freezers (excluding compressors, condensing units, and ice making machines) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	17	76.9	(NA)	92.0
36320 --	Household refrigerators and freezers, n.s.k. -----	(NA)	10.6	(NA)	11.6
36320 00	Household refrigerators and freezers, n.s.k., typically for establishments with 20 employees or more (see note) -----	(NA)	2.6	(NA)	8.0
36320 02	Household refrigerators and freezers, n.s.k., typically for establishments with less than 20 employees (see note) -----	(NA)	8.0	(NA)	3.6
3633- --	HOUSEHOLD LAUNDRY EQUIPMENT				
	Total -----	(NA)	2 789.4	(NA)	1 800.2
36330 --	Household laundry machines (including washing machines, dryers, and washer-dryer combinations): -----				
36330 10	Household laundry machines (including both coin- and noncoin-operated washing machines, dryers, and washer-dryer combinations) having a dry linen capacity not exceeding 10 KG (22 lb) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances) -----	6	2 581.5	14	1 593.7
36330 20	Parts, accessories, and attachments for household laundry equipment (sold separately) (for additional detail, see Current Industrial Report MA- 36F, Major Household Appliances) -----	10	206.9	12	203.0
36330 00	Household laundry equipment, n.s.k., typically for establishments with 10 employees or more (see note) -----	(NA)	.1	(NA)	1.2
36330 02	Household laundry equipment, n.s.k., typically for establishments with less than 10 employees (see note) -----	(NA)	.9	(NA)	2.3
3634- --	ELECTRIC HOUSEWARES AND FANS				
	Total -----	(NA)	2 588.6	(NA)	2 845.6
36341 --	Electric fans, except industrial type: -----				
36341 00	Electric fans, except industrial type (for additional detail, see Current Industrial Report MA-36E, Electric Housewares and Fans) -----	24	492.6	35	592.3
36345 --	Small electric household appliances, except fans: -----				
36345 00	Small electric household appliances, except fans (for additional detail, see Current Industrial Report MA-36E, Electric Housewares and Fans) --	84	1 813.2	114	1 977.3
36349 --	Parts and attachments for small household electric appliances -----	(NA)	187.2	(NA)	210.6
36349 11	Parts and attachments for household electric fans (for additional detail, see Current Industrial Report MA-36E, Electric Housewares and Fans) --	7	12.5	6	39.4
36349 20	Parts for other small household electric appliances (for additional detail, see Current Industrial Report MA-36E, Electric Housewares and Fans) --	23	168.8	27	170.1
36349 00	Parts and attachments for small household electric appliances, n.s.k. ----	(NA)	5.9	(NA)	1.2
36340 --	Electric housewares and fans, n.s.k. -----	(NA)	95.6	(NA)	65.4
36340 00	Electric housewares and fans, n.s.k., typically for establishments with 20 employees or more (see note) -----	(NA)	5.2	(NA)	37.5
36340 02	Electric housewares and fans, n.s.k., typically for establishments with less than 20 employees (see note) -----	(NA)	90.4	(NA)	27.9

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text.]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
3635--	HOUSEHOLD VACUUM CLEANERS						
	Total	(NA)	(X)	1 297.3	(NA)	(X)	905.8
36350 --	Household vacuum cleaners, including parts and attachments:						
36350 11	Hand type..... thousands.....	7	6 778.9	154.7	8	(S)	38.2
36350 31	Cannister/tank type	9	(S)	⁹ 409.5	13	2 912.0	323.1
36350 33	Upright/stick type	9	6 122.3	530.4	9	4 863.8	296.7
36350 36	Other general-purpose type, including utility	2	(D)	⁽⁹⁾	7	[*] 835.6	42.7
36350 41	Complete power units, central system type	5	(S)	13.6	9	558.6	98.6
36350 51	Attachments and cleaning tools, including central system attachments	11	(X)	55.0	10	(X)	20.3
36350 71	Parts for household type vacuum cleaners, including central system parts	13	(X)	93.9	16	(X)	83.4
36350 00	Household vacuum cleaners, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	34.5	(NA)	(X)	1.3
36350 02	Household vacuum cleaners, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	5.7	(NA)	(X)	1.6
1987 product code	Product	1987		1982		1982	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
3639--	HOUSEHOLD APPLIANCES, N.E.C.						
	Total	(NA)	2 286.1	(NA)	⁽⁶⁾		
36391 --	Household water heaters, electric:						
36391 00	Water heaters, electric (for permanent installation) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances)	10	388.9	15	300.8		
36392 --	Household water heaters, except electric:						
36392 00	Water heaters, except electric (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances)	12	541.5	13	390.5		
36395 --	Household appliances, n.e.c., and parts for household appliances, n.e.c.	(NA)	1 310.4	(NA)	⁽⁶⁾ (7)		
36395 10	Household dishwashing machines, food waste disposers and trash compactors, floor waxing and polishing machines, household sewing machines (including heads for sale with cabinets or cases, and heads for sale separately), and other major household appliances, n.e.c. (excluding parts) (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances)	15	1 211.8	(NA)	⁽⁶⁾		
36395 20	Parts and accessories for other household appliances, n.e.c. (for additional detail, see Current Industrial Report MA-36F, Major Household Appliances)	18	⁹ 98.6	(NA)	⁽⁶⁾		
36395 00	Household appliances, n.e.c., and parts thereof, n.s.k.	(NA)	-	(NA)	5.5		
36390 --	Household appliances, n.e.c., n.s.k.	(NA)	45.4	(NA)	21.6		
36390 00	Household appliances, n.e.c., n.s.k., typically for establishments with 20 employees or more (see note)	(NA)	19.5	(NA)	10.4		
36390 02	Household appliances, n.e.c., n.s.k., typically for establishments with less than 20 employees (see note)	(NA)	25.9	(NA)	11.2		

Note: In 1987 Census of Manufactures, data for establishments of small single unit companies with up to 20 employees were estimated from administrative-record data rather than data actually collected from respondents. Employment cutoffs used for administrative records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

¹Data reported by all producers, not just those with shipments of \$100,000 or more.

²For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

³For 1982, data for product codes 36311 10, 36311 20, 36313 10, 36313 20, 36314 10, and 36314 20 were not collected separately.

⁴For 1982, data were collected and published under product codes 36331 00, 36333 11, 36333 15, 36333 71, and 36333 00.

⁵For 1982, data were collected and published under product code 36333 95.

⁶In 1982, data for household sewing machines and parts and attachments were included under old SIC products 36361 21 and 36361 84, respectively, but were withheld to avoid disclosing data for individual companies. As a result, 1982 data for new SIC product codes 3639--, 36395--, 36395 10, and 36395 20 are withheld.

⁷For 1982, data for product code 36395-- were published under product codes 36361--. Household sewing machines and parts, excluding cases and cabinets sold separately; 36394--. Household dishwashing machines, food waste disposers, trash compactors, floor waxing and polishing machines, including parts and attachments; and 36399--. Household appliances, n.e.c., including parts.

⁸Data include parts for household water heaters.

⁹For 1987, data for product code 36350 36 have been combined with product code 36350 31 to avoid disclosing data for individual companies.

Table 3. Materials Consumed by Kind: 1987 and 1982

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 3631, HOUSEHOLD COOKING EQUIPMENT					
	Materials, parts, containers, and supplies	(X)	1 541.3	(X)	1 243.4
	Mill shapes and forms, except castings and forgings:				
	Carbon steel:				
331011	Bars and bar shapes 1,000 s tons..	(S)	376.7	(D)	(³)
331012	Sheet and strip do..	**268.1	149.6	281.8	169.2
331017	Wire and wire products do..	11.1	11.1	11.1	6.0
331004	All other do..	(D)	(³)	(S)	319.2
331020	Alloy steel, except stainless do..	(D)	(⁴)	3.7	7.8
	Stainless steel:				
331033	Sheet and strip 1,000 s tons..	3.9	7.9	3.2	8.5
331050	All other stainless steel mill shapes and forms do..			(D)	(D)
335770	Magnet wire mil lb..	-	-	-	-
335105	Copper and copper-base alloy do..	*7.1	7.5	(S)	2.1
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil mil lb..	**2.2	1.6	8.0	7.5
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc. do..	(S)	23.7	(S)	10.6
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.) do..				
	Insulated wire and cable, except magnet wire:				
335792	Copper (quantity of copper content) mil lb..	(D)	(⁴)	**9.7	7.9
335793	Aluminum (quantity of aluminum content) do..	-	-	-	-
346901	Metal stampings 1,000 s tons..	(D)	(⁴)	(S)	29.7
	Castings (rough and semifinished):				
332001	Iron (gray and malleable) and steel castings 1,000 s tons..	*1.9	3.1	(D)	(D)
336005	Aluminum and aluminum-base alloy mil lb..	**26.1	35.4	*46.0	41.7
336006	Copper and copper-base alloy do..	-	-	-	-
336009	Zinc and zinc-base alloy do..	**1.4	2.7	(S)	.2
336003	Other nonferrous do..	(D)	(⁴)	(D)	(D)
	Fractional horsepower electric motors:				
362110	Timing motors, synchronous and subsynchronous (less than 1 hp) thousands..	(D)	(⁴)	(D)	(D)
362115	Other fractional horsepower electric motors, excluding timing motors (less tha 1 hp) do..	(S)	12.9	3 736.4	19.6
362120	Integral horsepower electric motors and generators (1 hp or more): do..	(D)	(⁴)	(D)	(D)
260091	Paper and paperboard containers do..	(X)	47.4	(X)	50.9
345001	Bolts, nuts, screws, rivets, and screw machine products do..	(X)	24.7	(X)	29.5
349013	Wire racks, grills, springs, and other fabricated nonelectric wire products do..	(X)	31.1	(X)	27.4
360101	Electric transmission, distribution, and control equipment do..	(X)	30.7	(X)	108.1
364300	Current-carrying wiring devices do..	(X)	20.3	(X)	47.4
387316	Timing mechanisms (except microprocessors) thousands..	(S)	39.1	(S)	29.5
382201	Automatic temperature controls, thermostats, regulators, etc. do..	(X)	69.9	(X)	73.5
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products 1,000 gal..	(S)	28.8	(S)	29.4
329300	Gaskets (all types) and asbestos packing do..	(X)	3.2	(X)	4.9
306902	Fabricated rubber products, except tires, tubes, hoses, belting, and gaskets do..	(X)	1.3	(X)	.6
305201	Rubber and plastics hose and belting do..	(X)	4.0	(X)	5.0
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes do..	(X)	20.3	(X)	15.7
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes mil lb..	(D)	(⁴)	(D)	(D)
339915	Metal powders do..	(D)	(⁴)	(D)	(D)
335762	Complete flexible cord sets do..	(X)	(⁴)	(X)	2.8
367004	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic-type components do..	(X)	78.9	(X)	(⁵)
329601	Mineral wool insulation (fibrous glass, rockwool, etc.) do..	(X)	23.0	(X)	19.8
970099	All other materials and components, parts, containers, and supplies do..	(X)	456.0	(X)	322.6
971000	Materials, parts, containers, and supplies, n.s.k. ² do..	(X)	330.4	(X)	109.8
INDUSTRY 3632, HOUSEHOLD REFRIGERATORS AND FREEZERS					
	Materials, parts, containers, and supplies	(X)	1 991.0	(X)	1 384.8
	Mill shapes and forms, except casting and forgings:				
	Carbon steel:				
331011	Bars and bar shapes 1,000 s tons..	(⁶)	(⁶)	(D)	(D)
331012	Strip and sheet do..	*401.7	236.4	294.4	166.3
331013	Plates do..	(⁶)	(⁶)	(D)	(D)
331015	Structural shapes do..	-	-	(D)	(D)
331017	Wire and wire products do..	(S)	41.9	(S)	7.9
331019	All other carbon steel mill shapes and forms do..	*16.5	*16.4	** .5	.4
331020	Alloy steel, except stainless do..	(D)	(⁴)	(D)	(D)
	Stainless steel:				
331033	Sheet and strip 1,000 s tons..	(D)	(⁴)	*.5	1.5
331050	All other stainless steel mill shapes and forms do..	-	-	(D)	(D)
	Copper and copper-base alloy:				
335728	Bare wire (for electrical conduction only) mil lb..	17.7	23.6	9.7	12.5
335102	Rod, bar, and mechanical wire, including extruded and/ or drawn shapes do..				
335143	Plate, sheet, and strip, including military cups and discs do..				
335152	Pipe and tube do..				

See footnotes at end of table.

Table 3. Materials Consumed by Kind: 1987 and 1982—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 3632, HOUSEHOLD REFRIGERATORS AND FREEZERS—Con.				
	Mill shapes and forms, except casting and forgings—Con.				
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil _____ mil lb__	17.0	18.2	13.5	14.7
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc. _____ do__	(D)	(⁴)	**37.5	12.2
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.) _____ do__	(S)	28.4	*9.5	6.8
335791	Insulated copper wire and cable (except magnet wire) _____ do__	-	-	*.6	1.5
	Castings (rough and semifinished):				
332011	Iron (gray and malleable) _____ 1,000 s tons__	(D)	(⁴)	(D)	(D)
332045	Steel _____ do__	(D)	(⁴)	-	-
336005	Aluminum and aluminum-base alloy _____ mil lb__	(D)	(⁴)	(D)	(D)
336006	Copper and copper-base alloy _____ do__	(D)	(⁴)	-	-
336008	Other nonferrous _____ do__	(D)	(⁴)	(D)	(D)
339915	Metal powders _____ do__	(D)	(⁴)	(D)	(D)
346200	Iron and steel forgings _____ 1,000 s tons__	-	-	-	-
358501	Compressors, compressor units, condensing units, fin coils, and other heat-transfer equipment _____	(X)	303.2	(X)	275.3
	Electric motors and generators:				
	Fractional horsepower electric motors (less than 1 hp):				
362110	Timing motors, synchronous and subsynchronous _____ thousands__	6 793.8	25.6	(S)	8.5
362115	Other fractional horsepower electric motors, excluding timing motors _____ do__	*10 256.0	42.7	8 000.4	63.4
362120	Integral horsepower motors and generators (1 hp or more) _____ do__	-	-	732.0	10.5
	Bearings, including mounted and unmounted:				
356218	Ball _____	(X)	(Z)	(X)	(D)
356201	Roller _____	(X)	(Z)	(X)	-
260091	Paper and paperboard containers _____	(X)	61.9	(X)	38.7
242101	Rough and dressed lumber _____ mil bd ft__	*12.0	4.2	(D)	(D)
244021	Wooden containers, complete, including combination wood and paperboard _____	(X)	(⁴)	(X)	1.9
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes _____ mil lb__	*204.1	167.7	78.8	54.7
285101	Paints, varnishes, lacquers, shellacs, japans, and enamels _____ 1,000 gal__	(S)	24.3	(S)	21.3
286903	Refrigerant gases and other synthetic organic chemicals _____	(X)	40.5	(X)	24.9
305201	Rubber and plastics hose and belting _____	(X)	(⁴)	(X)	5.2
308006	Fabricated plastics products, except gaskets, hose, and belting _____	(X)	170.4	(X)	92.7
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes _____	(X)	21.7	(X)	30.7
306902	Fabricated rubber products, except tires, tubes, hose, belting, and gaskets _____	(X)	8.0	(X)	4.1
329300	Gaskets (all types) and asbestos packing _____	(X)	50.2	(X)	23.4
329601	Mineral wool insulation (fibrous glass, rock wool, etc.) _____	(X)	20.8	(X)	15.1
342903	Metal hardware, including hinges, handles, locks, casters, etc. _____	(X)	31.5	(X)	17.6
345001	Bolts, nuts, screws, rivets, washers, and screw machine products _____	(X)	42.1	(X)	17.8
346901	Metal stampings _____	(X)	30.7	(D)	(D)
349402	Fabricated metal pipe, valves, and pipe fittings _____	(X)	5.0	(X)	(D)
356401	Fans and blowers _____	(X)	(⁴)	(D)	(D)
360101	Electrical transmission, distribution, and control equipment _____	(X)	29.0	(X)	(D)
364300	Current-carrying wiring devices _____	(X)	81.8	(X)	44.1
382201	Automatic temperature controls, thermostats, regulators, etc. _____	(X)	59.2	(X)	32.9
970099	All other materials and components, parts, containers, and supplies _____	(X)	*358.0	(X)	265.3
971000	Materials, parts, containers, and supplies, n.s.k. ² _____	(X)	47.6	(X)	7.6
	INDUSTRY 3633, HOUSEHOLD LAUNDRY EQUIPMENT				
	Materials, parts, containers, and supplies _____	(X)	1 569.4	(X)	*1 062.4
	Mill shapes and forms, except castings and forgings:				
	Carbon steel:				
331011	Bars and bar shapes _____ 1,000 s tons__	(S)	15.2	56.9	32.6
331012	Sheet and strip _____ do__	(S)	308.6	358.5	189.8
331017	Wire and wire products _____ do__	(S)	6.0	7.9	1.8
331004	All other _____ do__	(S)	-	*2.8	2.9
331020	Alloy steel, except stainless _____ do__	(D)	(⁴)	(D)	(D)
	Stainless steel:				
331033	Sheet and strip _____ 1,000 s tons__	(S)	9.7	(S)	3.5
331050	All other stainless steel mill shapes and forms _____ do__	(S)	-	(D)	(D)
335770	Magnet wire _____ mil lb__	-	-	(D)	(D)
335105	Copper and copper-base alloy _____ do__	-	-	(D)	(D)
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil _____ mil lb__	(S)	9.4	*8.5	3.0
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc. _____ do__	(D)	(⁴)	(D)	(D)
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.) _____ do__	(D)	(⁴)	(D)	(D)
	Insulated wire and cable, except magnet wire:				
335792	Copper (quantity of copper content) _____ mil lb__	(D)	(⁴)	(D)	(D)
335793	Aluminum (quantity of aluminum content) _____ do__	-	-	-	-
346901	Metal stampings _____ 1,000 s tons__	(D)	(⁴)	(S)	43.5

See footnotes at end of table.

Table 3. **Materials Consumed by Kind: 1987 and 1982—Con.**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 3633, HOUSEHOLD LAUNDRY EQUIPMENT—Con.					
Castings (rough and semifinished):					
332001	Iron (gray and malleable) and steel castings ----- 1,000 s tons..	(D)	(*)	(D)	(D)
336005	Aluminum and aluminum-base alloy ----- mil lb..	(S)	23.2	*15.2	17.7
336006	Copper and copper-base alloy ----- do..		-	(D)	(D)
336009	Zinc and zinc-base alloy ----- do..	(S)	6.1	*21.1	4.8
336003	Other nonferrous ----- do..	(D)	(*)	(D)	(D)
Fractional horsepower electric motors:					
362110	Timing motors, synchronous and subsynchronous (less than 1 hp) ----- thousands..	(D)	(*)	*3 078.3	41.4
362115	Other fractional horsepower electric motors, excluding timing motors (less than 1 hp) ----- do..	(S)	188.3	5 732.4	115.5
362120	Integral horsepower electric motors and generators (1 hp or more) ----- do..	-	-	(D)	(D)
260091	Paper and paperboard containers -----	(X)	78.2	(X)	36.6
345001	Bolts, nuts, screws, rivets, and screw machine products -----	(X)	54.9	(X)	27.1
349013	Wire racks, grills, springs, and other fabricated nonelectric wire products -----	(X)	10.5	(X)	6.9
360101	Electric transmission, distribution, and control equipment -----	(X)	56.3	(X)	24.6
364300	Current-carrying wiring devices -----	(X)	47.1	(X)	32.1
387316	Timing mechanisms (except microprocessors) ----- thousands..	(S)	104.3	**7 894.1	54.6
382201	Automatic temperature controls: thermostats, regulators, etc. -----	(X)	13.0	(X)	(D)
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products ----- 1,000 gal..	(S)	38.4	**3 441.0	19.3
329300	Gaskets (all types) and asbestos packing -----	(X)	(*)	(X)	(D)
306902	Fabricated rubber products, except tires, tubes, hoses, belting, and gaskets -----	(X)	26.3	(X)	9.0
305201	Rubber and plastics hose and belting -----	(X)	32.8	(X)	35.5
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	(X)	68.4	(X)	27.3
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes ----- mil lb..	(S)	42.7	(S)	17.7
339915	Metal powders ----- do..	(D)	(*)	*42.9	7.6
335762	Complete flexible cord sets -----	(X)	.9	(X)	1.8
367004	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic-type components -----	(X)	(*)	(X)	(*)
329601	Mineral wool insulation (fibrous glass, rock wool, etc.) -----	(X)	(*)	(X)	(D)
970099	All other materials and components, parts, containers, and supplies -----	(X)	4 7427.5	(X)	189.3
971000	Materials, parts, containers, and supplies, n.s.k. ² -----	(X)	1.7	(X)	5.3
INDUSTRY 3634, ELECTRIC HOUSEWARES AND FANS					
Materials, parts, containers, and supplies -----		(X)	1 210.8	(X)	1 396.7
Mill shapes and forms, except castings:					
Carbon steel:					
331011	Bars and bar shapes ----- 1,000 s tons..	**1.7	1.3	(S)	2.1
331012	Sheet and strip ----- do..	77.9	49.3	*110.2	69.9
331017	Wire and wire products ----- do..	(S)	6.1	8.8	4.8
331004	All other ----- do..	*7.0	5.1	27.9	9.5
331020	Alloy steel, except stainless ----- do..	(D)	(*)	**3.8	4.7
Stainless steel:					
331033	Sheet and strip ----- 1,000 s tons..	**3.3	7.9	**7.3	16.0
331050	All other stainless steel mill shapes and forms ----- do..	**5	3.2	(S)	16.3
335770	Magnet wire ----- mil lb..	(D)	(*)	**8.4	15.8
335105	Copper and copper-base alloy -----	**1.9	2.6	5.8	7.8
Aluminum and aluminum-base alloy:					
335301	Sheet, plate, and foil ----- mil lb..	17.9	16.1	**61.9	30.2
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc. ----- do..	(D)	(*)	70.1	6.8
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.) ----- do..	(D)	(*)	(S)	2.6
Insulated wire and cable, except magnet wire:					
335792	Copper (quantity of copper content) ----- mil lb..	(S)	4.6	(S)	6.3
335793	Aluminum (quantity of aluminum content) ----- do..				
346901	Metal stampings ----- 1,000 s tons..	(S)	8.3	(S)	19.2
Castings (rough and semifinished):					
332001	Iron (gray and malleable) and steel castings ----- 1,000 s tons..	(D)	(*)	(D)	(D)
336005	Aluminum and aluminum-base alloy ----- mil lb..	(S)	11.3	(S)	14.2
336006	Copper and copper-base alloy ----- do..		-		
336009	Zinc and zinc-base alloy ----- do..	(D)	(*)	**8.8	24.4
336003	Other nonferrous ----- do..	(D)	(*)	(D)	(D)
Fractional horsepower electric motors:					
362110	Timing motors, synchronous and subsynchronous (less than 1 hp) ----- thousands..	3 527.2	15.2	(D)	(D)
362115	Other fractional horsepower electric motors, excluding timing motors (less than 1 hp) ----- do..	(S)	58.4	*25 089.0	117.6
362120	Integral horsepower electric motors and generators (1 hp or more) ----- do..	3 541.5	8.8	(D)	(D)
260091	Paper and paperboard containers -----	(X)	47.7	(X)	64.1
345001	Bolts, nuts, screws, rivets, and screw machine products -----	(X)	34.3	(X)	33.9
349013	Wire racks, grills, springs, and other fabricated nonelectric wire products -----	(X)	5.6	(X)	6.3
360101	Electric transmission, distribution, and control equipment -----	(X)	6.2	(X)	7.7
364300	Current-carrying wiring devices -----	(X)	29.3	(X)	38.1
387316	Timing mechanisms (except microprocessors) ----- thousands..	(D)	(*)	(S)	6.7
382201	Automatic temperature controls: thermostats, regulators, etc. -----	(X)	30.7	(X)	28.0
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products ----- 1,000 gal..	(S)	10.2	(S)	10.5

See footnotes at end of table.

Table 3. Materials Consumed by Kind: 1987 and 1982—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 3634, ELECTRIC HOUSEWARES AND FANS—Con.				
329300	Gaskets (all types) and asbestos packing	(X)	.8	(X)	2.9
306902	Fabricated rubber products, except tires, tubes, hoses, belting, and gaskets	(X)	3.2	(X)	3.8
305201	Rubber and plastics hose and belting	(X)	1.0	(X)	(D)
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes	(X)	98.7	(X)	73.5
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes	(S)	42.8	(S)	79.7
339915	Metal powders	(S)	1.8	(D)	(D)
335762	Complete flexible cord sets	(X)	17.6	(X)	25.6
367004	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic-type components	(X)	11.3	(X)	(⁹)
329601	Mineral wool insulation (fibrous glass, rock wool, etc.)	(X)	(⁴)	(X)	(D)
970099	All other materials and components, parts, containers, and supplies	(X)	*343.8	(X)	400.2
971000	Materials, parts, containers, and supplies, n.s.k. ²	(X)	327.6	(X)	171.1
	INDUSTRY 3635, HOUSEHOLD VACUUM CLEANERS				
	Materials, parts, containers, and supplies	(X)	674.1	(X)	271.1
	Mill shapes and forms, except castings:				
	Carbon steel:				
331011	Bar and bar shapes	(D)	(⁶)	2.0	1.7
331012	Sheet and strip	(D)	(⁶)	52.4	18.3
331017	Wire and wire products	(D)	(⁶)		
331004	All other	(D)	*20.4	2.2	2.4
331020	Alloy steel, except stainless	(X)	-	(D)	(D)
	Stainless steel:				
331033	Sheet and strip	(D)	(⁴)	(D)	(D)
331050	All other stainless steel mill shapes and forms	(D)	(⁴)	(D)	(D)
335770	Magnet wire	(D)	3.9	(S)	3.9
335105	Copper and copper-base alloy	(D)	(⁴)	(S)	1.4
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil	(D)	(⁴)	(D)	(D)
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc.	(D)	(⁴)	(D)	(D)
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.)	(D)	(⁴)	(D)	(D)
	Insulated wire and cable, except magnet wire:				
335792	Copper (quantity of copper content)	(D)	(⁴)	(D)	(D)
335793	Aluminum (quantity of aluminum content)	(D)	-	-	-
346901	Metal stampings	(S)	5.0	(D)	(D)
	Castings (rough and semifinished):				
332001	Iron (gray and malleable) and steel castings	(D)	(⁴)	(D)	(D)
336005	Aluminum and aluminum-base alloy	(S)	12.1	*6.3	5.2
336006	Copper and copper-base alloy	-	-	-	-
336009	Zinc and zinc-base alloy	(S)	1.6	3.4	1.0
336003	Other nonferrous	-	-	-	-
	Fractional horsepower electric motors:				
362110	Timing motors, synchronous and subsynchronous (less than 1 hp)	(D)	(⁴)	(D)	(D)
362115	Other fractional horsepower electric motors, excluding timing motors (less than 1 hp)	(S)	15.2	3 076.5	24.5
362120	Integral horsepower electric motors and generators (1 hp or more)	(S)	43.5	(D)	(D)
260091	Paper and paperboard containers	(X)	19.8	(X)	18.3
345001	Bolts, nuts, screws, rivets, and screw machine products	(X)	13.1	(X)	9.5
349013	Wire racks, grills, springs, and other fabricated nonelectric wire products	(X)	1.6	(X)	1.3
360101	Electric transmission, distribution, and control equipment	(X)	(⁴)	(X)	(D)
	Current-carrying wiring devices	(X)	(⁴)	(X)	(D)
387316	Timing mechanisms (except microprocessors)	(D)	(⁴)	(D)	(D)
382201	Automatic temperature controls (thermostats, regulators, etc.)	(X)	(⁴)	(X)	(D)
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products	(S)	1.5	(S)	1.3
329300	Gaskets (all types) and asbestos packing	(X)	(⁴)	(X)	1.2
	Fabricated rubber products, except tires, tubes, hoses, belting, and gaskets	(X)	(⁴)	(X)	3.3
305201	Rubber and plastics hose and belting	(X)	20.5	(X)	5.2
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes	(X)	58.8	(X)	32.7
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes	(S)	32.5	67.7	29.4
339915	Metal powders	(D)	(⁴)	(D)	(D)
335762	Complete flexible cord sets	(X)	6.4	(X)	6.1
367004	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic-type components	(X)	11.5	(X)	(⁹)
329601	Mineral wool insulation (fibrous glass, rock, wool, etc.)	(X)	(⁴)	(X)	-
970099	All other materials and components, parts, containers, and supplies	(X)	*196.8	(X)	*50.1
971000	Materials, parts, containers, and supplies, n.s.k. ²	(X)	209.8	(X)	.5

See footnotes at end of table.

Table 3. **Materials Consumed by Kind: 1987 and 1982—Con.**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 3639, HOUSEHOLD APPLIANCES, N.E.C.				
	Materials, parts, containers, and supplies	(X)	1 157.6	(X)	702.4
	Mill shapes and forms, except castings:				
	Carbon steel:				
331011	Bar and bar shapes	1,000 s tons..			
331012	Sheet and strip	455.4	244.7	206.0	104.3
331017	Wire and wire products	do..		do..	
331004	All other	do..		do..	
331020	Alloy steel, except stainless	do..		do..	
	Stainless steel:				
331033	Sheet and strip	1,000 s tons..			
331050	All other stainless steel mill shapes and forms	3.7	9.2	3.2	8.7
335770	Magnet wire	mil lb..	6.3	(S)	1.6
335105	Copper and copper-base alloy	do..	(⁴)	(D)	(D)
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil	mil lb..	(⁴)	(D)	(D)
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc.	do..	7.5	(D)	(D)
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.)	do..	(⁴)	(D)	(D)
	Insulated wire and cable, except magnet wire:				
335792	Copper (quantity of copper content)	mil lb..	9	*2.3	1.5
335793	Aluminum (quantity of aluminum content)	do..	(⁴)	-	-
346901	Metal stampings	1,000 s tons..	6.6	(S)	1.9
	Castings (rough and semifinished):				
332001	Iron (gray and malleable) and steel castings	1,000 s tons..	3.3	4.1	4.1
336005	Aluminum and aluminum-base alloy	mil lb..	(⁴)	*1.0	1.2
336006	Copper and copper-base alloy	do..	(⁴)	(D)	(D)
336009	Zinc and zinc-base alloy	do..	(⁴)	(D)	(D)
336003	Other nonferrous	do..	-	(S)	2.6
	Fractional horsepower electric motors:				
362110	Timing motors, synchronous and subsynchronous (less than 1 hp)	thousands..	(⁴)	(S)	2.5
362115	Other fractional horsepower electric motors, excluding timing motors (less than 1 hp)	do..			
362120	Integral horsepower electric motors and generators (1 hp or more)	do..		(D)	13.3
260091	Paper and paperboard containers	(X)	42.1	(X)	16.9
345001	Bolts, nuts, screws, rivets, and screw machine products	(X)	16.3	(X)	7.5
349013	Wire racks, grills, springs, and other fabricated nonelectric wire products	(X)	21.9	(D)	(D)
360101	Electric transmission, distribution, and control equipment	(X)	(⁴)	(X)	(D)
364300	Current-carrying wiring devices	(X)	25.7	(X)	11.8
387316	Timing mechanisms (except microprocessors)	thousands..	25.4	(D)	(D)
382201	Automatic temperature controls: thermostats, regulators, etc.	(X)	116.9	(X)	(D)
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products	1,000 gal..	14.9	(S)	10.6
329300	Gaskets (all types) and asbestos packing	(X)	10.3	(X)	1.3
306902	Fabricated rubber products, except tires, tubes, hoses, belting, and gaskets	(X)	4.3	(X)	8.2
305201	Rubber and plastics hose and belting	(X)	(⁴)	(X)	1.2
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes	(X)	24.8	(X)	3.6
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes	mil lb..	25.1	(S)	8.7
339915	Metal powders	do..	-	(D)	(D)
335762	Complete flexible cord sets	(X)	(⁴)	(X)	.4
367004	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic-type components	(X)	25.4	(X)	(⁵)
329601	Mineral wool insulation (fibrous glass, rock wool, etc.)	(X)	11.0	(X)	3.5
970099	All other materials and components, parts, containers, and supplies	(X)	*394.6	(X)	123.9
971000	Materials, parts, containers, and supplies, n.s.k. ²	(X)	64.7	(X)	257.5

¹For some establishments, data have been estimated from central unit values which are based on quantity-cost relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

²Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

³Data for material codes 331011 and 331004 are combined to avoid disclosing data for individual companies.

⁴Data are included with material code 970099 to avoid disclosing data for individual companies.

⁵In 1982, data for microprocessors only were collected separately, but withheld to avoid disclosing data for individual companies. Data for the remainder of material code 367004 were included in material code 970099.

⁶For 1987, data for material codes 331011, 331013, and 331017 are combined to avoid disclosing data for individual companies.

⁷For 1987, data for the consumption of glass and glass products were not collected separately, but included in material code 970099. For 1982, data for the consumption of these materials were collected separately, but withheld to avoid disclosing data for individual companies and are included in the total only.

⁸For 1987, data for material codes 331011, 331012, and 331017 are combined to avoid disclosing data for individual companies.

⁹For 1982, data for material code 367004 were not collected separately, but included with 970099.

¹⁰For both 1987 and 1982, data for material codes 331011 and 331017 are included with 331004 to avoid disclosing data for individual companies.



APPENDIX

Scope and Coverage and Explanation of Terms

GENERAL

The 1987 Census of Manufactures is the 32nd census of manufacturing establishments conducted in the United States. For 1987, it was conducted as part of the economic censuses, which included the censuses of mineral industries, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses, under authority of title 13 of the United States Code. Title 13 specifies that an economic census be conducted every 5 years to cover years ending in 2 and 7.

SCOPE AND COVERAGE

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. All manufacturing establishments with one paid employee or more at any time during the year are covered by the census of manufactures. Therefore, a company operating at more than one location is required to file a separate report for each location. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units which service manufacturing establishments of the same company. Where these auxiliary operations are conducted at the same location as the manufacturing operation, they are usually included in the report for the operating manufacturing establishment.

Use of Administrative Records

From a universe of approximately 350,000 manufacturing establishments in the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of the small establishment nonmail cases was done on an industry-by-industry basis. A variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. The cutoffs were selected so the administrative-record cases would account for approximately 3 percent or less of the value of shipments for the industry. These cutoffs were then adjusted so that all single-establishment companies with less than 5 employees were excluded from the mail canvass, while all establishments with more than 20 employees were included. Where establishments in the 5 to 20 employee size range were included in the mail canvass, an abbreviated census form was frequently used.

For these nonmail establishments, (and a small number of larger establishment whose reports were not received at the time the data were tabulated) data on employment, payroll, and receipts were obtained from administrative records of other government agencies rather than from census forms. The administrative-record information was then used in conjunction with industry averages to estimate the data for these establishments. The value of shipments and cost of materials were not distributed among specific products and materials but were included in the product and material "not specified by kind" (n.s.k.) categories.

EXPLANATION OF TERMS

Number of establishments and companies—A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

All employees—Includes all full-time and part-time employees on the payrolls at any time during the year. Included are all persons on paid sick leave, paid holidays, and paid vacations. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for midmonth payroll periods of March, May, August, and November.

Production workers—Includes workers up through the working-supervisor level engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power-plant), recordkeeping, and other closely associated services. Truckdrivers delivering ready-mixed concrete are also included in production workers.

Other employees—Includes nonproduction personnel, including those engaged in the following activities: supervision above working-supervisor level, sales (including driver/salespersons), sales delivery (truckdrivers and helpers), advertising, credit collection, installation and

servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional, and technical employees.

Payroll—Includes the gross earnings for the “employees” defined above, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees’ Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

Production-worker hours—Covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

Cost of materials—Refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuels consumed, regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or generating electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

Specific materials consumed (table 3)—In addition to the total cost of materials which every establishment was required to report, information was also collected for most manufacturing industries on the consumption of major materials used in manufacturing. These inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers’ records. Establishments consuming less than a specified amount (usually \$10,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which administrative records were used was estimated as “not specified by kind” (n.s.k.).

Value of shipments and other receipts—Generally refers to received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all

miscellaneous receipts such as receipts for contract work performed for others, installation and repair receipts, sale of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishment from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In a few industries, the value of production or value of work completed is used instead of value of shipments. These industries are identified in the introduction and are footnoted in table 1.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, that is, including not only the direct costs of production but also a reasonable proportion of “all other costs” (including company overhead and profit).

Shipments or production of individual products (table 2)—In the 1987 census, detailed shipment information was collected for approximately 11,000 individual products. These products are identified by a seven-digit code and are grouped into approximately 1,500 classes of products, which in turn are primary to 459 four-digit industries. Data at the five-digit product-class level have been collected each year as part of the annual survey of manufactures. Information at the seven-digit level, collected for many industries in the current industrial reports program, is not included in this table.

Value added by manufacture—This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacturing, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1), value added is adjusted only for the change in work-in-process inventories between the beginning and end of the year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

Value added avoids the duplication in the figure for value of shipments which results from the use of products of some establishments as materials by others. Value

added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Expenditures for new plant and equipment—Establishments in operation and any known plants under construction were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expenses. Data for used plant and equipment will be published in the final industry bulletin.

End-of-year inventories—Comprised of (a) finished products; (b) work-in-process; and (c) materials, supplies, fuels, etc. Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method.

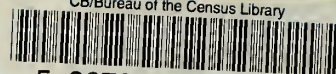
Therefore, 1982 through 1987 data for inventories are not strictly comparable to prior-year data.

Specialization and coverage ratios—An establishment is classified in a particular industry if its shipments of primary products of the industry exceed in value its shipments of the products of any other single industry. An establishments' shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). The following ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in table 1 and data on product shipments shown in table 2.

Specialization ratio—Represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio—Represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments, wherever classified.

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